

## **ABSTRACT**

Disclosed is a wireless communication system for providing a service in a time division duplexing (TDD) mode and a frequency division duplexing (FDD) mode according to a duplexing mode determination factor of a mobile station in a base station communicating with the mobile station. During call setup, the mobile station transmits the duplexing mode determination factor to the base station, sets a TDD mode or an FDD mode as a reverse mode set by the base station, and sets up a channel for the set reverse mode and a forward channel to perform communication. During call setup, the base station receives the duplexing mode determination factor from the mobile station, sets a reverse mode to the TDD mode or the FDD mode using the received duplexing mode determination factor, and sets up a reverse channel for the set mode and a TDD mode for forward transmission to communicate with the mobile station.